UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,371	11/21/2003	Yin L. Liong	08212/1200285-US1	3587

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EXAMINER
SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
	10/719,371	LIONG ET AL.
Office Action Summary	Examiner	Art Unit	
	Kristie Shingles	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 November 2003_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-27_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _05 May 2004_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _6/1/04_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claims 1-27 are pending.

Priority

1.   Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 120. The certified copy has been filed in provisional Application No. 60/467,233, filed on April 30, 2003.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on 6/01/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the Office. An initialed and dated copy of Applicant's IDS form 1449, is attached to the instant Office action.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: *362*. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement

sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as

not to obstruct any portion of the drawing figures. If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in the

next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

5.   Claims **1-4** are rejected under 35 U.S.C. 102(e) as being anticipated by *Gibson et al*

(USPN 6,680,943).

        a.   **Per claim 1**, *Gibson et al* teach a system for configuring differentiated services

(Diffserv) over multi-protocol label switching (MPLS) in a network that includes MPLS tunnels,

comprising: a policy server that is arranged to configure a customer policy and a mapping policy

that maps between an experimental (EXP) field and a unique per-hop-behavior (PHB), and to

deploy the mapping policy and the customer policy to interfaces of devices of the network that

correspond to the tunnels (**col.9 line 1-col.11 line 48, col.12 line 19-col.13 line 35, col.14 line**

14-col.16 line 31, col.19 line 1-col.20 line 64 and col.23 line 60-col.24 line 51; the

administrative server implements the appropriate policies according to the QoS and

requests and determines a plurality of possible paths mapping between the abstract nodes

and the subsequent hops to the endpoint nodes, a preference for a specific path is determined, a reservation of bandwidth is made along the most preferred path, and a connection mechanism is deployed for establishing a connection for interfaces the nodes over the most preferred path/tunnel).

b.   **Per claim 2,** *Gibson et al* teach the system of claim 1, wherein the customer policy comprises a tunnel group identifier and tunneling mode (**col.7 lines 7-39, col.10 line 66-col.11 line 13 and col.13 lines 18-35; tunnels are registered in the management layer, labeled for identification and used as label switch paths in the MPLS network**).

c.   **Per claim 3,** *Gibson et al* teach the system of claim 1, wherein the policy server translates the mapping policy into device specific commands, and deployment is performed by deploying commands to specific devices (**col.11 line 14-col.12 line 65, col.13 line 18-col.15 line 19, col.18 line 52-col.19 line 9, col.22 line 21-col.23 line 67 and col.24 line 1-col.25 line 51; the administrative server implements the policies into messages for establishing the label switch paths/tunnels and thereafter assists initiates deployment of the established connection between the nodes and endpoint devices**).

d.   **Per claim 4,** *Gibson et al* teach the system of claim 1, wherein deployment is such that the interfaces associate with at least one of input roles, output roles and MPLS gateways of customer source and destination host groups (**col.8 lines 1-41, col.9 line 26-col.10 line 59, col.12 lines 15-42 and col.22 line 21-col.24 line 21; the COPS interfaces with the administrative server, admission manager and endpoints over the MPLS network for deployment of the preferred connection path among the nodes**).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims **5-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gibson et al*

(USPN 6,680,943) in view of *Giniger et al* (USPN 6,751,729).

a.   **Per claim 11,** *Gibson et al* teach an apparatus for configuring Diffserv over

MPLS in a network, comprising: a means for defining a mapping policy that maps between an

EXP field and a unique PHB **(col.7 lines 8-39, col.9 line 1-col.10 line 16, col.11 line 14-col.12**

line 42, col.15 line 4-col.16 line 31, col.18 lines 53-67 and col.19 line 1-col.20 line 64) and a

means for maintaining a customer policy **(col.22 lines 29-67 and col.24 lines 33-41)**, yet fails to

explicitly teach a means for translating the mapping policy and customer policy into device-

specific commands; and a means for deploying the device-specific commands to policy targets.

However, *Giniger et al* teach implementing device-specific commands according to the

particular policy wherein the commands instruct the devices on mapping policies, such as which

tunnels to add and use **(col.4 lines 2-67, col.5 line 10-col.6 line 54, col.10 lines 37-65 and col.15**

lines 16-65).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of *Gibson* and *Giniger et al* for the purpose of

implementing the policies into command for carrying out the appropriate mapping and routing

procedures; because in order to effectively and successfully execute a policy, it must be translatable to the components of the system for the proper deployment.

b.   **Claims 5, 14 and 21** contain limitations that are substantially equivalent to claim 11 and are therefore rejected under the same basis.

c.   **Per claim 6,** *Gibson et al* teach the apparatus of claim 5, further comprising: a user interface that is arranged to receive the customer policy and the mapping policy (**col.9 line 12-col.10 line 38, col.13 lines 36-47, col.19 line 9-col.20 line 64, col. 24 line 33-col.25 line 51 and col.31 lines 4-22; provision for interfaces capable of receiving and executing policies, mapping configurations and commands**).

d.   **Per claim 7,** *Gibson et al* teach the apparatus of claim 5, wherein deployment is such that the interfaces associate with at least one of input roles, output roles and MPLS gateways of customer source and destination host groups (**col.8 lines 1-41, col.9 line 26-col.10 line 59, col.12 lines 15-42 and col.22 line 21-col.24 line 21; the COPS interfaces with the administrative server, admission manager and endpoints over the MPLS network for deployment of the preferred connection path among the nodes, deployment involves coupling between the interfaces of the nodal devices on the MPLS network with remote sites**).

e.   **Claims 8, 13, 18 and 25** are substantially equivalent to claim 7 and are therefore rejected under the same basis.

f.   **Per claim 9,** *Giniger et al* teach the apparatus of claim 5, further comprising: a database for storing the device-neutral policy parameters (**col.11 lines 3-20 and col.15 lines 4-**

65; provision for routing database and central database storing device information and parameters pertaining to routing and security policies).

       g.   **Per claim 10,** *Giniger et al* teach the apparatus of claim 5, wherein the service application comprises a tunnel group object that is arranged to create the MPLS tunnels by specifying end-point routers and inter-connecting topology (**col.6 lines 6-57; tunnels are arranged within the MPLS network for defining the endpoints, devices and overall topology of the network**).

       h.   **Per claim 12,** *Gibson et al* teach the apparatus of claim 11, wherein the customer policy includes information about a tunnel group identifier and a tunnel mode (**col.7 lines 7-39, col.10 line 66-col.11 line 13 and col.13 lines 18-35; tunnels are registered in the management layer, labeled for identification and used as label switch paths in the MPLS network**).

       i.   **Claims 20 and 27** are substantially equivalent to claim 12 and are therefore rejected under the same basis.

       j.   **Per claim 15,** *Giniger et al* teach the article of claim 14, wherein executing the instructions further results in: generating device neutral information associated with the mapping policy, the network policy and the customer policy (**col.10 lines 37-57, col.11 lines 3-20 and col.15 lines 4-65; provision acquiring device information pertaining to routing and security policies**).

       k.   **Claim 22** is substantially equivalent to claim 15 and is therefore rejected under the same basis.

l.   **Claims 17 and 24** are substantially equivalent to claim 9 and are therefore rejected under the same basis.

m.   **Per claim 16,** *Giniger et al* teach the article of claim 15, wherein the device specific commands are generated from the device neutral information (**col.6 lines 23-30, col.10 lines 37-57 and col.11 lines 12-51; the device information is used for making routing determinations used when generating device-specific commands**).

n.   **Claim 23** is substantially equivalent to claim 16 and is therefore rejected under the same basis.

o.   **Per claim 19,** *Giniger et al* teach the article of claim 14, wherein deploying the mapping policy to the network interfaces further comprises issuing new commands to reconfigure a router based on the mapping policy (**col.8 lines 29-65 and col.12 lines 28-66; provision for issuing commands for router updating and reconfiguration**).

p.   **Claim 26** is substantially equivalent to claim 19 and is therefore rejected under the same basis.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    a.   *Gibson* (USPN 6,678,264) discloses establishing connections with a pre-specified quality of service across a communication network.

    b.   *Meepat et al* (USPN 6,778,496) disclose a distributed call admission and load balancing method and apparatus for packet networks.

    c.   *Goguen et al* (USPN 6,665,273) disclose dynamically adjusting multiprotocol label switching (MPLS) traffic engineering tunnel bandwidth.

    d.   *Ma et al* (USPN 6,775,280) disclose methods and apparatus for routing packets using policy and network efficiency information.

    e.   *Maher, III et al* (USPN 6,741,595) disclose a device for enabling trap and trace of IP communications.

    f.   *Ashwood-Smith et al* (USPN 6,791,985) disclose an ATM transport over Multi-Protocol Label Switching.

    g.   *McDysan* (USPN 6,778,498) disclose a virtual private network aware customer premises equipment edge router.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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